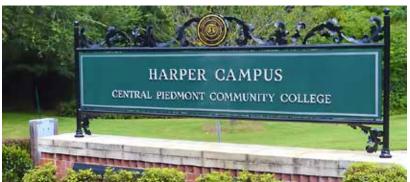


## Prez Sez ...

Fall has fell and we have a rather "full plate" scheduled for it. We have tried to disseminate information about the club's move to the Harper Campus of CPCC as widely as possible. For those members we may have somehow missed, this is to inform you of a significant change that is about to take place for the Charlotte Gem & Mineral Club.

As of January 2014 we will be holding all meetings and classroom teaching sessions (with the exception of Jr. Rockhounds) at the Harper Campus of CPCC at 315 W. Hebron Street. This move offers us an opportunity to expand and diversify the club by holding classes and events for the public (as well as the membership) promoted through CPCC's extensive database and newsletters.





Auditorium for General Meetings at CPCC (will seat about 80)

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# 2012 CGMC Officers & Board

#### **President**

Murray Simon msimonnc@gmail.com (704) 668-5658

#### Vice President

Lindsay Werden lwerden@carolina.rr.com (704) 542-6270

#### Secretary

Pat Walker 704/523-5261

#### <u>Treasurer</u>

Vivian Philson philson05@gmail.com

#### **Directors at Large**

Mary Fisher mefisher@att.net Brad Glover glov4305@bellsouth.net

#### **Bulletin & WEB Editor**

Ron Gibbs theimage1@aol.com

#### **Past President**

Jack King jackkretired09@gmail.com

#### **CLUB CHAIRPERSONS**

#### SFMS Contact & StampChair

Pat Walker

#### **Geode Chair**

Jimmy Strickland

#### Workshop Chair

Linda Simon Isimon1@carolina.rr.com

#### Librarian

Pat Walker

#### Field Trip Chair

Jack King

jackkretired09@gmail.com

#### **Christmas Party Chair**

Pat Walker

#### **Special Events**

Kim Gwyn gwynk@flashlink.net

WEB Site www.charlottegem.com In addition, as can be seen in the photos that follow, the Harper Campus offers us a variety of advantages we have not previously had available to us:

- A convenient location just off South Boulevard.
- A state of the art auditorium capable of accommodating large groups.
- Modern classrooms equipped with granite lab benches, gas jets, retractable projection screens, etc.
- A future opportunity to conduct silversmithing and soldering classes
- The convenience of storing classroom equipment and supplies under lock and key.
- Huge, well-lighted parking lots
- The availability of evening and weekend class hours
- An affiliation with an academic institution

The move-in process will begin this month with the transfer of our cabbing equipment and materials from Sarah Lee Boyce's basement to our designated Harper classroom. Our first CPCC-based event will be the general club meeting on January 16, 2014. Keep a close watch on the last of the 2013 newsletters for directions, schedules and future events.

We have been fortunate to acquire the contents of a few lapidary workrooms this year and have some exciting equipment and rough for you to bid on. Next month will be the annual club auction and much of this material will be available for bid.

**Murray Simon -** President Charlotte Gem and Mineral Club, Orthogonol Cartographer, Edge Walker at the Flat Earth Society.



CPCC Potential Classroom

## Charlotte Gem & Mineral Club Monthly Meeting

October 17, 2011 Thursday -- 7:00 pm --

**Location:** Tyvola Senior Center

2225 Tyvola Rd. Charlotte, NC 28210 (704) 522-6222

> Dr. Sarah Carmichael Appalacian State University Department of Geology

She is a geochemist who specializes in fluid-rock reactions in both ancient and modern environments. In her past history she studied metasomatism (changes caused by hydrothermal fluids) at mid-ocean ridges. She traveled to the ocean bottom in the submersible Alvin. She will share slides and videos from these journeys.

## Charlotte Jr. Rockhound Group

When: October 19th, 2013

10:00 - 11:00 a.m.

Where: Matthew Community Center

100 McDowell St. Matthews, NC

**Topic:** Gem Hunt

Please Note this is a members only event this month. You must sign up by October 17th with Mary Fisher to get one of the 20 available slots. This moths presentation is limited to 20 students.

To sign up for the classes, contact Mary Fisher at: mefisher@att.net



The research ship Atlantis is owned by the US Navy and operated y the Woods Hole Oceanographic Institute (WHOI). It is fitted to be a base for the Alvin submersible. This small craft can take a small number of individuals to the bottom of the ocean for research purposes.

The Atlantis has a crew of 36 and room for up to 24 scientist and technicians, and can stay out for up to 2 months as a self contained unit. The ship is outfitted with computers and labs for sea going science.

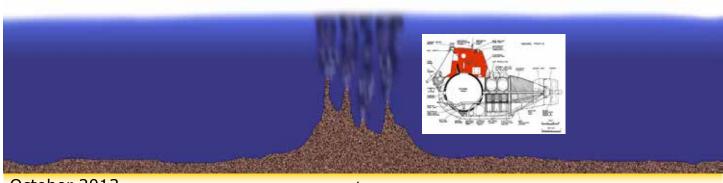
The Alvin is a manned submersible with a grand history. It can reach about 60% of the global ocean floors. Is was first built in 1964 and over 4,400 dives to its credit.

It was used in the Mediterranean Seas and aided in the atomic bomb recovery in the 1960s, it visited the first known hydrothermal vents, and even made a trip to visit the Titanic.

It can venture to a depth of about 4500 meters (about 3 miles down) and carries a crew of 3 including a pilot and two scientists. The craft is fitted with video cameras, external lighting, and manipulator arms.

The entire craft is disassembled every 3 to 5 years and checked or rebuilt as needed. It was in dry dock for most of 2012 and has an entirely redesigned manned portion with 2 additional windows and upgraded electronics. There are now 5 portholes in the sub and the personnel chamber. The redesigned sphere can now descend to 6500 metes (4 miles).

The sub will still be limited to 4500 meters until a second upgrade replaces the batteries. As this is being written the sub has just finished recertification for diving and has headed out to its first new job.



#### Potential Officer Slate for 2014

Here is the proposed slate of officers for next year. The vote will be taken at the November meeting. If there are any additional nominations they can be made in October or November.

President - Murray Simon V. Pres. - Lindsay Werden Secretary - Vickie Glover Treasurer - Vivian Philson Directors at Large:

Mary Fisher Brad Glover **Editor** - Ron Gibbs

Fell free to nominate yourself for any position you would like to obtain. Other positions listed inside of page two of the newsletter are appointed by the President. He would also gladly accept recommendations for any of those.

## Jewelry Making Class

Before the regular meeting Linda Simon will be conducting a jewelry making class at the senior center. Linda will offer help with wirewrapping, but you should bring your own tools if you have them. She will have some tools to lend, and will bring some extra cabochons for projects.

If you already have a project underway and just need a little help in finishing or if you want to start one from scratch you are welcome.

# Start Time: 5:00 pm class finishes at 7:00 pm

October 17th, 2013 Tyvola Senior Center

Contact Linda for further information lsimon1@carolina.rr.com

## Stamp Program

by Pat Wallker

For our "new members", the Southeast federation of Mineralogical Societies (SFMS) collects stamps to raise money to support it's scholarship fund for classes each year. Please trim 1/4" from stamp and give them to Pat Walker at any of our regular meetings. The stamps are repackaged and sold to collectors by SFMS and the monies go to the fund. Those clubs bringing in the largest number of stamps are entered each year in a drawing and can win scholarships to the SFMS weeks.

Log into AMFED.org (American Federation of Mineralogical Societies) and then select the SFMS WEB site, or go direct at (http://www.amfed.org/sfms/) and check out the classes offered this year at the William Holland and Wild Acres schools.

There are four sessions offered tis year 2 at each location. The price has gone up slightly to \$350 for the week. This includes your room (shared) and 3 meals a day plus the class. Each class may also have a materials fee set by the instructor.

### Vibrating Tumble Tips

by Dan via The Lithnics, October 2008 from Gemcutter News, V 58, N 10, Baltimore, Maryland.

How do you know when to change grit size?

In a vibratory tumbler you start out with medium (220) grit, then you go to 600 grit and then polish. If you ever buy a grit kit, make sure it's for a vibratory tumbler and that it contains no 100 arit. (If you use 100 grit you'll find that it sinks to the bottom, stays there and does nothing.) You may want to add astepandofrom 220 to 320 or 400 before the 600 grit. Doing this saves a little time, but not that much.

The way you know when to change grit is when you've gotten the stones as smooth as you want them to be. That means that all pockets, chips etc. are gone. If most of the piece you are tumbling look good, but there are just a few that need more work, go ahead and switch to the next grit. Run the ones that need more work through the next batch to finish them. You want the stones to be pretty good before switching from the 220 grit or they'll take for- ever in the 600 and if you continue to run all the stones at 220, those that are already smooth enough, won't get any better. This is the long step.

My two vibratory tumblers usu- ally take about 3-4 days on 220, 12 hours on 400, 1 to 1/2 days on the 600 grit and 1 day on the polish. I change grit/polish every twelve hours, washing the much out into a 5 gallon bucket to settle/ evaporate. I pour off the clean water from the top of the bucket after it's settled for several days and put the muck at the bottom in a plastic bag and into the trash. You don't want to pour the muck down your drain!

Can you save grit and use it again for the next batch of rock?

If you are doing it right, there won't be much grit left to save. The grit should break down as you tumble the material. I always had a little grit left on the 200 run that just didn't go away until I paid a little extra for a graded 220. It costs a few cents extra per pound, but is worth it to me.

Why do they recommend that a separate barrel be used for polishing?

Contamination from the grit. Somehow you almost never get it all, no matter how hard yo try washing

it out. Contaminations between grit size changes isn't as crucial, but try to wash your stones and barrel well anyway.

Do you put polyethylene pellets in the final polishing stage with a vibratory tumbler?

You can. Always change pellets from different grit sizes. Because the grit becomes embedded in the pellets, re-use them only with the same grit size or you will get contamination. I bought a bag of pellets several years ago, Before I used them, I mentioned that I'd bought them to a dealer friend. He went out to his garage and came back with a gallon milk jug full of 1/4 to 1/2 inch pieces of aqate screened from his good stuff.

I have yet to open that bag of pellets! You want small stuff to help the tumbling, as long as you have that, you don't need pellets. I've added to the gallon jug and my wife sifts through and takes out stuff to make things like gem trees if I let her near it. This gives you a reason not to throw away the small pieces when you are out hunting or when vou trim a bit off a slab or cabochon. The chips don't need to be changed between grits so you may never need pellets.

A caution: You should always tumble stuff of like hardness. Don't tumble ob- sidian with agate etc. or your softer materials will disappear. The most common thing that people tumble are quartz-based; agate, jasper, quartz, etc. which are all pretty much the same hardness.

Please remember that these tmes are for a VIRATORY tumbler, NOT a rotating tumbler.

## Carrot, carat or karat?

The term carat comes from the middle French word *carat*, which came from the Italian *carato*, which came from the Arabic *qirat*, which came from the Greek *keration* which meant carob seed. It is a unit of weight equal to 200 mg, 1/5 of a gram. (It can be abbreviated with *ct.*) It can be divided into 100 points, which are then equal to 2 milligrams each. Thus a 10 carat 15 point stone weighs in at (10x200mg) + (15x 2mg) or 2030 mg. (2.03 gm)

Points are often used in the diamond industry to demark the weight of very small stones ... "the diamond was a 10 point melee piece." (or 1/10 of a carat)

The karat (but sometimes also written as carat) is the purity of a metal. It is based on 24 parts making the whole. Thus 24 kt gold is pure 100% gold.

Karat is a variant of the word carat, but the weird numbering comes from the Roman Constantine who minted a gold coin called the *solidus*. It was 1/72 of a *libra*, which we all know was a pound of Roman gold and was equal to 24 *siliqua*. This of course was

Diamond Auctions Hitting their Stride in 2013

A white diamond the size of a small egg has set a new record in sales at auction. This is the largest diamond cut from the original rough (299 carats) found in South Africa in 2011.

The flawless 118 ct stone sold for 30.6 million dollars at auction becoming the highest priced colorless stone sold to an individual collector.

In November an even more rare fancy orange diamond will go under the gavel. the orange diamond (named "The Orange") weighs in at 14.8c carats. They are expecting a price of around 20 milion for this stone.



14.8 carat orange diamond

equal to 1/1728 of a libra, which defined precisely the weight of a karat. (Wasn't that easy?)

Gold content by weight ... 24 kt = 100%, 18 kt = 75%, 14 kt = 58.3% and 10 kt = 41.7%

And the last, carrot, is from the Latin *carote*, from the Greek *karotov*, from the Indo-European



118 ct flawless white

But these two are just the warm ups for the main event. On November 13th, a vivid pink diamond is expected to go up for sale. The 59.6 carat perfect pink is expected to fetch about \$60 million dollars once again setting new record for diamonds at auction. The diamond is set in a ring.



59.6 ct pink diamond

ker- (meaning horn). It is a vegetable where the taproot is the portion consumed. The first carrots were red or yellow, and it was not until reaching the Netherlands (circa 1600) that the carrot developed its now common color of orange.

So ...carrot=an item, carat=a weight, and karat=a volume by weight.

#### DMC Program of the SFMS Field Trip Committee

An Official Field Trip of the Aiken Gem and Mineral Society (Aiken, SC) (HOST)
An Official Field Trip of the (Charlotte Gem & Mineral Club)

#### Graves Mtn.

Lincolnton, GA Sat., November 16, 2013 10:00 AM to 5:00 PM

**FEE** 

Where: Graves Mountain, inactive open pit mine, Lincolnton GA.

**Collecting:** Beautiful *lazulite*, *pyrophyllite*, and *kyanite*; world class *rutile* can be found rarely. Also *pyrite* and *iridescent goethite*. Over 50 different minerals can be unearthed in this extinct volcano and former mine, and now dig site for gem and mineral clubs and other organizations. Georgia Mineral Society has further details and photos on their website: http://www.gamineral.org/ftcomm.html

**Recommended Tools:** Backpack, gloves, sledge, crack hammer, rock hammer, pry bar, shovel, chisels. Some people bring a hand truck to ferry buckets and tools in and out of the mine. **HARD HAT and SAFETY GLASSES are REQUIRED.** 

**Meeting Location:** Norman wrecking company building, C.E. Norman Rd. Directions: From Washington GA, drive 11 miles east on US-378; or from the Hardee's in Lincolnton GA, drive approximately 5.5 miles west on US-378. Turn north on CE Norman Road, which is about 0.1 miles east of the Wilkes County/Lincoln County boundary sign. Proceed 0.6 miles north to the garage. Assembly Time: 10:00 am. Everyone off the mountain by 5:00 pm

**FEE:** \$5 or more per person donation to Clarence Norman, Jr., the mine's caretaker. All DMC members must sign a liability release at the Norman Wrecking Co. Bldg., before being allowed onto the site.

**Children:** No children under age 12. Children 12 and over must be supervised by an adult. Pets: OK

**Safety:** DMC Members must sign and adhere to the Graves Mountain Code of Conduct (see below). There are no toilet facilities.

**Contact:** Walt Kubilius, Aiken GMFS (803) 643-3281 home, (803) 215-9342 cell wkkw@bellsouth.net; www.aikengmfs.org

Graves Mountain code of conduct:

- Park your vehicle in the designated area (at the end of the paved access road but not much beyond the woods to the right of this road).
- ALL pets must be kept under control and on a leash.
- The caretaker, Junior Norman, has final and absolute say as to where you may safely work.
- Ladders or power tools of any kind will not be allowed. (HAND TOOLS ONLY!)
- STAY AWAY FROM ALL HIGH WALLS!!
- NO RAPPELLING OFF OF ANYTHING!
- NO ONE IS ALLOWED TO DRIVE THEIR VEHICLE ON ANY PART OF GRAVES MOUNTAIN BEYOND THE PARKING AREA! (The caretaker must accompany anyone driving beyond the parking area!)